Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Previously Presented) A method in a computer system for transforming at least one sentence of a document or a query into a canonical representation, each sentence having a plurality of terms, comprising:

for each sentence,

parsing the sentence to generate a parse structure having a plurality of syntactic elements;

determining a set of meaningful terms of the sentence from the syntactic elements;

determining from the structure of the parse structure and the syntactic elements a grammatical role for each meaningful term in the set of meaningful terms, wherein the grammatical role is at least one of a subject, object, verb, part of a prepositional phrase, noun modifier, or verb modifier;

determining an additional grammatical role for at least one of the meaningful terms, such that the at least one meaningful term is associated with at least two different grammatical roles, wherein the additional grammatical role indicates that the at least one of the meaningful terms is a subject or an object in addition to the grammatical role determined from the parse structure; and

storing in an enhanced data representation data structure a representation of each association between a meaningful term and its determined grammatical roles, in a manner that indicates a grammatical relationship between a plurality of the meaningful terms and

such that the at least one meaningful term is associated with a plurality of grammatical relationships.

3. (Previously Presented) The method of claim 2 wherein heuristics are used to determine the additional grammatical role for the at least one of the meaningful terms.

4. (Previously Presented) The method of claim 3 wherein a meaningful term is associated with a verb modifier as the determined grammatical role and is associated with an object as the additional grammatical role.

5. (Previously Presented) The method of claim 3 wherein a meaningful term is associated with a verb modifier as the determined grammatical role and is associated with a subject as the additional grammatical role.

6. (Previously Presented) The method of claim 3 wherein a meaningful term is associated with a verb modifier as the determined grammatical role and is associated with a verb as the additional grammatical role.

7. (Previously Presented) The method of claim 3 wherein a meaningful term is associated with a subject as the determined grammatical role and is associated with an object as the additional grammatical role.

8. (Previously Presented) The method of claim 3 wherein a meaningful term is associated with a object as the determined grammatical role and is associated with a subject as the additional grammatical role.

9. (Previously Presented) The method of claim 3 wherein a meaningful term is associated with a noun modifier as the determined grammatical role and is associated with a subject as the additional grammatical role.

10. (Previously Presented) The method of claim 3 wherein a meaningful term is associated with a noun modifier as the determined grammatical role and is associated with an object as the additional grammatical role.

11. (Previously Presented) The method of claim 2 wherein the determined additional grammatical role is a part of grammar that is not implied by the position of the at least one meaningful term relative to the structure of the sentence.

12. (Previously Presented) The method of claim 2 wherein heuristics are used to determine which grammatical relationships are to be stored in the enhanced data representation data structure.

13. (Previously Presented) The method of claim 2 wherein the determining the grammatical role for each meaningful term and the determining of the additional grammatical role for at least one of the meaningful terms yields a plurality of grammatical relationships between meaningful terms that are identical.

14. (Canceled)

15. (Previously Presented) The method of claim 2 wherein the document is part of a corpus of heterogeneous documents.

16. (Previously Presented) The method of claim 2 wherein the enhanced data representation data structure is used to index a corpus of documents.

17. (Previously Presented) The method of claim 2 wherein the enhanced data representation data structure is used to execute a query against objects in a corpus of documents.

18. (Previously Presented) The method of claim 17 wherein the enhanced data representation data structure corresponds to the query and results are returned that satisfy the query when an object in the corpus contains similar terms associated with similar grammatical roles to the terms and their associated roles as stored in the enhanced data representation that corresponds to the query.

19. (Previously Presented) The method of claim 18 wherein the objects in the corpus are sentences and indications of sentences that satisfy the query are returned.

20. (Previously Presented) The method of claim 18, further comprising returning indications of documents that contain similar terms to those found in at least one sentence that was indicated in the results returned that satisfied the query.

21. (Previously Presented) The method of claim 18, further comprising returning indications of documents that contain similar terms to those found in at least one document that was indicated in the results returned that satisfied the query.

22. (Previously Presented) The method of claim 17 wherein the enhanced data representation data structure corresponds to the query and terms that are associated with designated grammatical roles are returned for each object in the corpus that contains similar terms associated with similar grammatical roles to the terms and associated roles of designated relationships from the enhanced data representation data structure that corresponds to the query.

23. (Previously Presented) The method of claim 17 further comprising adding additional grammatical relationships to the enhanced data representation data structure to be used to execute the query against objects in a corpus of documents.

24. (Previously Presented) The method of claim 23 wherein at least one of entailed verbs or related verbs are used to add additional grammatical relationships.

25. (Previously Presented) The method of claim 17 wherein weighted results that satisfy the query are returned.

26. (Previously Presented) A computer-readable memory medium containing instructions for controlling a computer processor to transform at least one sentence of a document or a query into a canonical representation, each sentence having a plurality of terms, by performing a method comprising:

for each sentence,

parsing the sentence to generate a parse structure having a plurality of syntactic elements;

determining a set of meaningful terms of the sentence from the syntactic elements;

determining from the structure of the parse structure and the syntactic elements a grammatical role for each meaningful term in the set of meaningful terms, wherein the grammatical role is at least one of a subject, object, verb, part of a prepositional phrase, noun modifier, or verb modifier;

determining an additional grammatical role for at least one of the meaningful terms, such that the at least one meaningful term is associated with at least two different grammatical roles, wherein the additional grammatical role indicates that the at least one of the meaningful terms is a subject or an object in addition to the grammatical role determined from the parse structure; and

storing in an enhanced data representation data structure a representation of each association between a meaningful term and its determined grammatical roles, in a manner that indicates a grammatical relationship between a plurality of the meaningful terms and such that the at least one meaningful term is associated with a plurality of grammatical relationships.

27. (Previously Presented) A syntactic query engine for transforming at least one sentence of a document or a query into a canonical representation, each sentence having a plurality of terms, comprising:

parser that is configured to decompose each sentence to generate a parse structure for the sentence having a plurality of syntactic elements; and

postprocessor that is configured to

receive from the parser the parse structure of the sentence;

determine a set of meaningful terms of the sentence from the syntactic elements;

determine from the structure of the parse structure and the syntactic elements a grammatical role for each meaningful term in the set of meaningful terms, wherein the grammatical role is at least one of a subject, object, verb, part of a prepositional phrase, noun modifier, or verb modifier;

determine an additional grammatical role for at least one of the meaningful terms, such that the at least one meaningful term is associated with at least two different grammatical roles, wherein the additional grammatical role indicates that the at least one of the meaningful terms is a subject or an object in addition to the grammatical role determined from the parse structure; and

store, in an enhanced data representation data structure, a representation of each association between a meaningful term and its determined grammatical roles, in a manner that indicates a grammatical relationship between a plurality of the meaningful terms and such that the at least one meaningful term is associated with a plurality of grammatical relationships.

28. (Previously Presented) The query engine of claim 27 wherein the postprocessor uses heuristics to determine the additional grammatical role for the at least one of the meaningful terms.

29. (Previously Presented) The query engine of claim 28 wherein the postprocessor associates a meaningful term with a verb modifier as the determined grammatical role and with an object as the additional grammatical role.

30. (Previously Presented) The query engine of claim 28 wherein the postprocessor associates a meaningful term with a verb modifier as the determined grammatical role and with a subject as the additional grammatical role.

31. (Previously Presented) The query engine of claim 28 wherein the postprocessor associates a meaningful term with a verb modifier as the determined grammatical role and with a verb as the additional grammatical role.

32. (Previously Presented) The query engine of claim 28 wherein the postprocessor associates a meaningful term with a subject as the determined grammatical role and with an object as the additional grammatical role.

33. (Previously Presented) The query engine of claim 28 wherein the postprocessor associates a meaningful term with a object as the determined grammatical role and with a subject as the additional grammatical role.

34. (Previously Presented) The query engine of claim 28 wherein the postprocessor associates a meaningful term with a noun modifier as the determined grammatical role and with a subject as the additional grammatical role.

35. (Previously Presented) The query engine of claim 28 wherein the postprocessor associates a meaningful term with a noun modifier as the determined grammatical role and with an object as the additional grammatical role.

36. (Previously Presented) The query engine of claim 27 wherein the determined additional grammatical role is a part of grammar that is not implied by the position of the at least one meaningful term relative to the structure of the sentence.

37. (Previously Presented) The query engine of claim 27 wherein the postprocessor uses heuristics to determine which grammatical relationships are to be stored in the enhanced data representation data structure.

38. (Previously Presented) The query engine of claim 27 wherein the determining the grammatical role for each meaningful term and the determining of the additional grammatical role for at least one of the meaningful terms yields a plurality of grammatical relationships between meaningful terms that are identical.

39. (Canceled)

40. (Previously Presented) The query engine of claim 27 wherein the document is part of a corpus of heterogeneous documents.

41. (Previously Presented) The query engine of claim 27 wherein the enhanced data representation data structure is used to index a corpus of documents.

42. (Previously Presented) The query engine of claim 27, further comprising a query processor that uses the enhanced data representation data structure to execute a query against objects in a corpus of documents.

43. (Previously Presented) The query engine of claim 42 wherein the enhanced data representation data structure corresponds to the query and the query processor returns results that satisfy the query when an object in the corpus contains similar terms

associated with similar grammatical roles to the terms and their associated roles as stored in the enhanced data representation.

44. (Previously Presented) The query engine of claim 43 wherein the objects in the corpus are sentences and the query processor returns indications of sentences that satisfy the query.

45. (Previously Presented) The query engine of claim 43 wherein the enhanced data representation data structure corresponds to the query and the query processor returns indications of documents that contain similar terms to those found in at least one sentence that was indicated in the results that satisfied the query.

46. (Previously Presented) The query engine of claim 43 wherein the enhanced data representation data structure corresponds to the query and the query processor returns indications of documents that contain similar terms to those found in at least one document that was indicated in the results that satisfied the query.

47. (Previously Presented) The query engine of claim 42 wherein the enhanced data representation data structure corresponds to the query and the query processor returns terms that are associated with designated grammatical roles for each object in the corpus that contains similar terms associated with similar grammatical roles to the terms and associated roles of designated relationships from the enhanced data representation data structure.

48. (Previously Presented) The query engine of claim 42 wherein the query processor adds additional grammatical relationships to the enhanced data representation data structure to be used to execute the query against objects in a corpus of documents.

49. (Previously Presented) The query engine of claim 42 wherein the query processor returns weighted results that satisfy the query.

50.-80. (Canceled)

81. (Currently Amended) A method in a computer system for storing a normalized data structure representing at least one sentence of a document or a query, each sentence having a plurality of terms, comprising:

~~for each sentence,~~

determining a set of meaningful terms of ~~the~~ each sentence and at least one grammatical role for each meaningful term, wherein the grammatical role is at least one of a subject, object, verb, part of a prepositional phrase, noun modifier, or verb modifier; and

storing sets of grammatical relationships between a plurality of meaningful terms based upon the determined grammatical role of each meaningful term relative to a meaningful term that is being used as a governing verb, wherein, for each meaningful term that is being used as a governing verb, the normalized data structure contains a subject table having a set of meaningful term pairs that are subjects relative to the governing verb, an object table having a set of meaningful term pairs that are objects relative to the governing verb, a subject-object table representing an association between the subject table and the object table, a preposition table having a set of meaningful terms that are verb modifiers of prepositional phrases that relate to the governing verb, and a noun modifier table having a set of meaningful term pairs that are noun modifiers of noun phrases that relate to the governing verb.

82. (Previously Presented) The method of claim 81, further comprising storing meaningful terms that correspond to a designated attribute.

83. (Previously Presented) The method of claim 82 wherein the designated attribute is at least one of country name, date, money, amount, number, location, person, corporate name, and organization.

84. (Previously Presented) A data processing system comprising a computer processor and a memory, the memory containing structured data that stores a normalized

representation of sentence data, the structured data being manipulated by the computer processor under the control of program code and stored in the memory as:

a subject table having a set of meaningful term pairs, each pair having a meaningful term that is associated with a grammatical role of a verb and a meaningful term that is associated with a grammatical role of a subject relative to the verb;

an object table having a set of meaningful term pairs, each pair having a meaningful term that is associate with a grammatical role of a verb and a meaningful term that is associated with a grammatical role of an object relative to the verb;

a representation of associations between the subject table and the object table, the representation indicating, for each meaningful term associated with the grammatical role of the verb, the meaningful terms that are associated with the grammatical role of subject relative to the verb and the meaningful terms that are associated with the grammatical role of object relative to the verb;

a preposition table having a set of meaningful term groups, each group having a meaningful term that is associated with a grammatical role of a verb, a meaningful term that is associated with a grammatical role of a preposition relative to the verb, and a meaningful term that is associated with a grammatical role of a verb modifier relative to the verb; and

a noun modifier table having a set of meaningful term pairs, each pair having a meaningful term that is associated with a grammatical role of a noun and a meaningful term that is associated with a grammatical role of an noun modifier relative to the noun.

85. (Currently Amended) A computer-readable memory medium containing instructions for controlling a computer processor to store in a data repository a normalized data structure representing at least one sentence of a document or a query, each sentence having a plurality of terms, by:

~~for each sentence,~~

determining a set of meaningful terms of ~~the~~ each sentence and at least one grammatical role for each meaningful term; and

storing sets of grammatical relationships between a plurality of meaningful terms based upon the determined grammatical role of each meaningful term relative to a meaningful term that is being used as a governing verb, wherein, for each meaningful term that is being used as a governing verb, the normalized data structure contains a subject table having a set of meaningful term pairs that are subjects relative to the governing verb, an object table having a set of meaningful term pairs that are objects relative to the governing verb, a subject-object table representing an association between the subject table and the object table, a preposition table having a set of meaningful terms that are verb modifiers of prepositional phrases that contain the governing verb, and a noun modifier table having a set of meaningful terms that are noun modifiers of noun phrases that relate to the governing verb.

86. (Currently Amended) A computer system for storing a normalized data structure representing at least one sentence of a document or a query, each sentence having a plurality of terms, comprising:

enhanced parsing mechanism that determines a set of meaningful terms for each sentence and at least one grammatical role for each meaningful term;

a data repository; and

storage mechanism structured to store in the data repository sets of grammatical relationships between a plurality of the determined meaningful terms based upon the determined grammatical role of each meaningful term relative to a meaningful term that is being used as a governing verb, wherein, for each meaningful term that is being used as a governing verb, the normalized data structure contains entries in a subject table having a set of meaningful term pairs that are subjects relative to the governing verb, an object table having a set of meaningful term pairs that are objects relative to the governing verb, a subject-object table representing a set of associations between the subject table and the object table, a preposition table having a set of meaningful term groups, each group having ~~that are~~ verb modifiers of prepositional phrases that contain the governing verb, and a noun modifier table having a set of meaningful term pairs that are noun modifiers of noun phrases that relate to the governing verb.

87. (Previously Presented) The system of claim 86, the storage mechanism further structured to store meaningful terms that correspond to a designated attribute.

88. (Previously Presented) The system of claim 87 wherein the designated attribute is at least one of country name, date, money, amount, number, location, person, corporate name, and organization.

89. (Previously Presented) A method in a computer system for transforming an object into a canonical representation for use in indexing the objects of a data set and in querying the data set, the object being other than a text-only document and having a plurality of units that are specified according to an object-specific grammar, comprising:

for each object,

decomposing the object to generate a parse structure having a plurality of syntactic elements;

determining a set of meaningful units of the object from these syntactic elements;

determining from the structure of the parse structure and the syntactic elements a grammatical role for each meaningful unit; and

storing in an enhanced data representation data structure a representation of each meaningful unit associated with its determined grammatical role, in a manner that indicates a grammatical relationship between a plurality of the meaningful units.

90. (Previously Presented) The method of claim 89 wherein the objects are audio data and the units of objects are portions of audio data.

91. (Previously Presented) The method of claim 89 wherein the objects are video data and the units of objects are portions of video data.

92. (Previously Presented) The method of claim 89 wherein the objects are images and the units of objects are graphical data.

93. (Previously Presented) A computer-readable memory medium containing instructions for controlling a computer processor to transform an object into a canonical representation for use in indexing the objects of a data set and in querying the data set, the object being other than a text-only document and having a plurality of units that are specified according to an object-specific grammar, by:

for each object,

decomposing the object to generate a parse structure having a plurality of syntactic elements;

determining a set of meaningful units of the object from these syntactic elements;

determining from the structure of the parse structure and the syntactic elements a grammatical role for each meaningful unit; and

storing in an enhanced data representation data structure a representation of each meaningful unit associated with its determined grammatical role, in a manner that indicates a grammatical relationship between a plurality of the meaningful units.

94. (Previously Presented) A query engine in a computer system for transforming an object into a canonical representation for use in indexing the objects of a data set and in querying the data set, the object being other than a text-only document and having a plurality of units that are specified according to an object-specific grammar, comprising:

decomposition processor that is structured to decompose the object to generate a parse structure having a plurality of syntactic elements; and

postprocessor that is structured to

receive from the decomposition processor the generated parse structure;

determine a set of meaningful units of the object from these syntactic elements;

determine from the structure of the parse structure and the syntactic elements a grammatical role for each meaningful unit; and

store in an enhanced data representation data structure a representation of each meaningful unit associated with its determined grammatical role, in a manner that indicates a grammatical relationship between a plurality of the meaningful units.

95. (Previously Presented) The method of claim 19 wherein the returned indications of sentences are indications of paragraphs.

96. (Previously Presented) The method of claim 19 wherein the returned indications of sentences are indications of documents.

97. (Previously Presented) The method of claim 20 wherein the at least one sentence that was indicated in the results is a paragraph.

98. (Previously Presented) The method of claim 97 wherein the indications of documents that contain similar terms are determined using latent semantic regression techniques.

99. (Previously Presented) The method of claim 20 wherein the indications of documents that contain similar terms are determined using latent semantic regression techniques.

100. (Previously Presented) The method of claim 21 wherein the indications of documents that contain similar terms are determined using latent semantic regression techniques.

101. (Previously Presented) The query engine of claim 44 wherein the returned indications of sentences are indications of paragraphs.

102. (Previously Presented) The query engine of claim 44 wherein the returned indications of sentences are indications of documents.

103. (Previously Presented) The query engine of claim 45 wherein the at least one sentence that was indicated in the results is a paragraph.

104. (Previously Presented) The query engine of claim 103 wherein the indications of documents that contain similar terms are determined using latent semantic regression techniques.

105. (Previously Presented) The query engine of claim 45 wherein the indications of documents that contain similar terms are determined using latent semantic regression techniques.

106. (Previously Presented) The query engine of claim 46 wherein the indications of documents that contain similar terms are determined using latent semantic regression techniques.

107.- 118. (Canceled)

119. (Previously Presented) The method of claim 2 wherein an enhanced data representation data structure is generated for a plurality of sentences of each document in a corpus of documents as part of indexing the corpus, and further comprising:

receiving a query that specifies only a portion of a grammatical relationship between two terms, the portion being a specification of the relationship or a specification of one of the two terms but not both terms;

transforming the query into an enhanced data representation data structure; and

comparing the enhanced data representation data structure of the query against the enhanced data representation data structures of each indexed sentence such that indications of

sentences are returned as matches when the enhanced data representation data structure of the query matches at least one of enhanced data representation data structures of the indexed sentence by using a wildcard to match unspecified information in the grammatical relationship indicated by the enhanced data representation data structure of the query.

120. (Previously Presented) The method of claim 119 wherein the query specifies only an action.

121. (Currently Amended) The method of claim 119 wherein the query specifies a single term as either a subject or an object, and further comprising:

when the query specifies the subject, the method returns a matching result when the term appears in an enhanced data representation data structure of an indexed sentence as an object; and

when the query specifies the object, the method returns a matching result when the term appears in an enhanced data representation data structure of an indexed sentence ~~or~~ as a subject.

122. (Previously Presented) The computer-readable memory medium of claim 26 wherein heuristics are used to determine the additional grammatical role for the at least one of the meaningful terms.

123. (Previously Presented) The computer-readable memory medium of claim 26 wherein a meaningful term is associated with a verb modifier as the determined grammatical role and is associated with an object as the additional grammatical role.

124. (Previously Presented) The computer-readable memory medium of claim 26 wherein a meaningful term is associated with a verb modifier as the determined grammatical role and is associated with a subject as the additional grammatical role.

125. (Previously Presented) The computer-readable memory medium of claim 26 wherein a meaningful term is associated with a verb modifier as the determined grammatical role and is associated with a verb as the additional grammatical role.

126. (Previously Presented) The computer-readable memory medium of claim 26 wherein a meaningful term is associated with a subject as the determined grammatical role and is associated with an object as the additional grammatical role.

127. (Previously Presented) The computer-readable memory medium of claim 26 wherein a meaningful term is associated with a object as the determined grammatical role and is associated with a subject as the additional grammatical role.

128. (Previously Presented) The computer-readable memory medium of claim 26 wherein a meaningful term is associated with a noun modifier as the determined grammatical role and is associated with a subject as the additional grammatical role.

129. (Previously Presented) The computer-readable memory medium of claim 26 wherein a meaningful term is associated with a noun modifier as the determined grammatical role and is associated with an object as the additional grammatical role.

130. (Previously Presented) The computer-readable memory medium of claim 26 wherein the determined additional grammatical role is a part of grammar that is not implied by the position of the at least one meaningful term relative to the structure of the sentence.

131. (Previously Presented) The computer-readable memory medium of claim 26 wherein heuristics are used to determine which grammatical relationships are to be stored in the enhanced data representation data structure.

132. (Previously Presented) The computer-readable memory medium of claim 26 wherein the determining the grammatical role for each meaningful term and the determining of the additional grammatical role for at least one of the meaningful terms yields a plurality of grammatical relationships between meaningful terms that are duplicative.

133. (Previously Presented) The computer-readable memory medium of claim 26 wherein the document is part of a corpus of heterogeneous documents.

134. (Previously Presented) The computer-readable memory medium of claim 26 wherein the enhanced data representation data structure is used to index a corpus of documents.

135. (Previously Presented) The computer-readable memory medium of claim 26 wherein the enhanced data representation data structure is used to execute a query against objects in a corpus of documents.

136. (Previously Presented) The computer-readable memory medium of claim 135 wherein the enhanced data representation data structure corresponds to the query and results are returned that satisfy the query when an object in the corpus contains similar terms associated with similar grammatical roles to the terms and their associated roles as stored in the enhanced data representation that corresponds to the query.

137. (Previously Presented) The computer-readable memory medium of claim 136 wherein weighted results that satisfy the query are returned.

138. (Previously Presented) The computer-readable memory medium of claim 136 wherein a wildcard is used to generate results that satisfy the query.

139. (Previously Presented) The computer-readable memory medium of claim 135 further comprising adding additional grammatical relationships to the enhanced data representation data structure to be used to execute the query against objects in a corpus of documents.

140. (Previously Presented) The computer-readable memory medium of claim 139 wherein at least one of entailed verbs or related verbs are used to add additional grammatical relationships.

141. (Previously Presented) The query engine of claim 42 wherein the query processor associates a wildcard with the query to generate results that satisfy the query.